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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,780	07/01/2003	Michael W. Dac	RADNT-039C	5891
7590	07/20/2007	Robert D. Buyan Stout, Uxa, Buyan & Mullins, LLP 4 Venture, Suite 300 Irvine, CA 92618	EXAMINER GIBSON, ROY DEAN	
			ART UNIT 3739	PAPER NUMBER
			MAIL DATE 07/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/612,780	DAE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Roy D. Gibson	3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 14 May 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 42,44-48 and 52-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 53-59 is/are allowed.
- 6) Claim(s) 42,44-48 and 52 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 July 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

***Formal Matters***

The allowability of claim 44 is withdrawn in light of newly found prior art, therefore, this Office action is non-final.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 42, 44-48 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gobin et al. (6,416,533) in view of Noda et al. (6,530,945) and further in view of Dobak, III (6,843,800). Gobin et al. disclose a system comprising:

a heat exchange catheter (Figures 7-9) insertable into a blood vessel of the patient (col. 5, line 65-col. 6, line 67); and Noda et al. discloses a controller for such catheter comprising:

a temperature controller in communication with the heat exchange catheter to cause the heat exchange catheter capable of reducing the temperature of at least the patient's kidneys to a temperature at which the substance-induced renal damage is prevented or mitigated (col. 2, line 1-col. 3, line 28); wherein the heat exchange catheter of Gobin et al. comprises at least one balloon (103 or 105) containing a heat exchange fluid flowing from the temperature controller; wherein the at least one balloon is

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circumferentially disposed about the catheter to direct the heat exchange fluid in an opposite direction of blood flowing past the catheter; and wherein the temperature controller includes temperature monitoring means for monitoring the patient's temperature; temperature adjusting means for adjusting the temperature of the heat exchange catheter capable of maintaining a constant reduced temperature of the patient's kidneys; wherein the temperature adjusting means adjusts the temperature in response to the temperature monitored by the temperature monitoring means; wherein the heat exchange catheter comprises a flow disruption device (shape of balloons 103 and 105) to disrupt the laminarity of blood flow around the catheter; and wherein the temperature controller controls the temperature and flow of heat exchange fluid flowing through the heat exchange catheter (col. 2, line 1-col. 3, line 28 of Noda as above).

But, neither Gobin et al. or Noda et al. disclose an anti-shivering agent as an element of the system combination. However, Dobak discloses a patient temperature regulation method and apparatus for cooling blood flowing in portions of the heart to effect the temperature of body organs (inherently including the kidneys) with the teaching that hypothermia tends to trigger aggressive thermoregulatory defenses in the human body and that anti-shivering drugs can prohibit damage to cardiac-compromised patients since shivering increases their metabolic rate to dangerous levels. Such drugs are selected from clonidine, meperidine, propofol, magnesium, dexmedetomidine, and combinations thereof (col. 14, lines 24-63).

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Therefore, it would have been obvious at the time of the invention to modify the system of, as taught by Gobin/Noda, to provide anti-shivering drugs to provide the advantages disclosed by Dobak.

***Allowable Subject Matter***

Claims 53-69 are allowed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roy D. Gibson whose telephone number is 571-272-4767. The examiner can normally be reached on Tu-Th, 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on 571-272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Roy D. Gibson*  
Roy D. Gibson  
Primary Examiner  
Art Unit 3739

July 16, 2007